IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.	:	09/801,795 Confirmation No.: 1394
Applicant(s)	:	Matichuk
Filed	:	March 9, 2001
Art Unit	:	2129
Examiner	:	Hirl, Joseph P.
Title	:	APPLICATION INTEGRATION SYSTEM AND METHOD USING INTELLIGENT AGENTS FOR INTEGRATING INFORMATION ACCESS OVER NETWORKS
Atty. Docket No.	:	062A.0002.U1(US)
Customer No.	:	29,683

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Appeal Brief

Sir:

This is an appeal brief in regard to the final rejection of claims in the above-identified patent application. A Notice of Appeal was mailed to the USPTO on July 18, 2006. A petition for extension of time under 37 C.F.R. 1.136(a)(1) is enclosed. A payment covering both the fee under 37 C.F.R. §41.20(b)(2) and the fee for extension of time is enclosed. Please charge deposit account 50-1924 for any fee deficiency.

Applicant is entitled to Small Entity Status.

I. Real Party In Interest

The real party in interest is Celcorp, Inc.

11/21/2006 EFLORES 00000029 09801795

01 FC:2402 250.00 OP
02 FC:2252 225.00 OP

II. Related Appeals and Interferences

There are no directly related appeals or interferences regarding this application.

III. Status Of Claims

Claims 1 - 24 are pending in this application. Claims 1 - 24 have been rejected by the Examiner. The rejection of Claims 1 - 24 is appealed.

IV. Status Of Amendments

Since the final rejection of January 20, 2006 no amendments have been filed.

V. Summary of Claimed Subject Matter

Claim 1 is for a computer system computer application screen fingerprinter (See page 10, lines 3 - 4; page 11, lines 3 - 6), said computer system comprising (See FIG. 6; page 10, line 4): a processor (620)(See FIG. 6; page 10, line 4); a computer memory (610)(See FIG. 6; page 10, line 4) coupled to said processor; and a screen fingerprinter (See page 10, lines 5 - 7; page 11, lines 3 - 6; page 18, line 7 - page 20, line 11) stored in said computer memory, wherein said fingerprinter comprises a decision tree (See page 18, line 14 - page 19, line 17) that selects at least one region and/or pattern of screens of a presentation space of a computer application to be captured such that an occurrence of the at least one region

and/or pattern enables the decision tree to uniquely identify each of the screens (See page 10, line 7; page 11, line 6; page 19, lines 13 - 17).

Claim 5 is for a computer system computer application recorder (See page 9, lines 12 - 17; page 11, lines 6 - 13), said computer system comprising: a processor (620)(See FIG. 6; page 9, line 13); a computer memory (610)(See FIG. 6; page 9, line 14) coupled to said processor; a user interface (See FIG. 1; page 9, line 13) and a recorder stored in said computer memory, wherein said recorder records in said computer memory a knowledge base which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to reach each state, the available actions from each state of each screen and the effect of any actions available in each state through navigating said computer application in said user interface (See page 9, lines 14 - 17; page 11, lines 9 - 14; page 20, lines 2 - 11).

Claim 10 is for a computer system navigation planner (See page 10, lines 8 - 14; page 11, lines 1 - 3), said computer system comprising; a processor (620)(See FIG. 6; page 11, line 2); a computer memory (610)(See FIG. 6; page 11, line 2)coupled to said processor; at least one computer application model (See page 13, lines 12 - 17) stored in said computer memory; and a navigation planner stored in said computer memory; wherein when said navigation planner receives a problem statement (See page 13, line 15), said navigation

planner accesses said at least one computer application model to create a plan of solving said problem statement and executes said plan (See page 13, lines 12 - 15; page 13, line 20 - page 14, line 7; page 21, lines 9 - 16).

Claim 12 is for a computer system computer application model generator, said computer system comprising: a processor (620)(See FIG. 6); a fingerprinter (See page 10, lines 3 - 7; page 11, lines 3 - 6); a recorder (See page 9, lines 12 - 17; page 11, lines 6 - 13); and a user interface (100) (See FIG. 1, page 13, line 20); wherein said fingerprinter selects at least one region and/or pattern of the screens of the presentation space of a computer application to be captured such that said at least one region and/or pattern of each screen is unique (See page 10, line 7; page 11, line 6; page 18, line 7 - page 19, line 17); wherein said recorder records in said computer memory a knowledge base which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to reach each screen, a fingerprint of each screen, the available actions from each screen and the effect of any actions available in each screen through navigating said computer application in said user interface (See page 9, lines 12 - 17; page 11, lines 9 - 14; page 20, lines 1 - 11); wherein additional relationships between said screen and said knowledge base can be input through said user interface such that said computer application model generator can model said computer application (See page 16, line 14 - page 17, line 18).

Claim 13 is for a computer system computer application integrator, said computer system comprising: a processor (620)(See FIG. 6); a computer memory (610)(See FIG. 6); a runtime agent (See page 9, lines 6 - 8) stored in said computer memory; and at least one computer application model (See page 13, lines 12 - 17) stored in said computer memory, said model modeling at least one computer application; wherein when said processor receives a problem statement (See page 13, line 15), said runtime agent accesses said at least one computer application model to intelligently reason out a goal-oriented plan (See page 13, lines 14 - 15; page 13, line 20 - page 14, line 7, page 16, lines 14 - 15) and accesses the modeled computer applications to execute the tasks necessary to solve said problem statement (See page 13, lines 12 - 14).

Claim 14 is for a method of uniquely identifying the screens of the presentation layer of a computer application (See page 18, line 14 - page 19, line 20) comprising the steps of: taking a screen capture of each screen of the presentation layer of a computer application (See page 10, lines 5 - 6; page 11, lines 3 - 4); selecting areas of said screen captures to be examined for the presence of an attribute in said area (See page 18, line 14 - page 19, line 6); and creating a decision tree such that each of said screen captures has a unique end node of said decision tree (See page 19, lines 7 - 17).

Claim 18 is for a method of recording the states of a computer application comprising the steps of: accessing said computer application (See page 9, lines 12 - 17; page 11, lines 1 - 11); navigating said computer application (See page 20, lines 4 - 5); and recording in a knowledge base each screen of the presentation layer of said computer application, keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen (See page 9, lines 14 - 17; page 11, lines 9 - 14; page 20, lines 2 - 11).

Claim 21 is for a method of planning a solution to a problem statement comprising the steps of: receiving a problem statement at a computer system (See page 13, line 15); accessing at least one computer application model (see page 13, lines 12 - 17) that encapsulates information on how at least one computer application is controlled and/or data is accessed; planning at least one path through said at least one computer application that will achieve the goal of said problem statement (See page 10, lines 8 - 10; page 16, lines 14 - 15; page 18, lines 3 - 4); and executing said at least one path (See page 10, lines 10 - 13).

Claim 22 is for a method of modeling computer applications comprising the steps of: taking a screen capture of each screen of the presentation layer of a computer application (See page 10, lines 5 - 6; page 11, lines 3 - 4);

selecting areas of said screen captures to be examined for the presence of an attribute in said area (See page 18, line 14 - page 19, line 6); creating a decision tree such that each of said screen captures has a unique end node of said decision tree (See page 19, lines 7 - 17); accessing said computer application (See page 9, lines 12 - 17; page 11, lines 1 - 11); navigating said computer application (See page 20, lines 4 - 5); and recording in a knowledge base each screen of the presentation layer of said computer application, keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen (See page 9, lines 12 - 17; page 11, lines 9 - 14; page 20, lines 1 - 11).

Claim 24 is for a system for navigating an application (See page 11, lines 1 - 14) comprising: a processor (620)(See FIG. 6); a computer memory (610)(See FIG. 6) coupled to the processor; a screen fingerprinter (See page 10, lines 5 - 7; page 11, lines 3 - 6; page 18, line 7 - page 20 - line 11) stored in said computer memory, wherein said fingerprinter comprises a decision tree (See page 18, line 14 - page 19, line 17) that selects at least one region and/or pattern of screens of the presentation space of a computer application to be captured such that an occurrence of the at least one region and/or pattern enables the decision tree to uniquely identify each of the screens (See page 10, line 7; page 11, line 6; page 19, lines 13 - 17); a recorder (See page 9, lines 12 - 17; page 11, lines 6 - 13) stored in the computer memory, the recorder recording a knowledge base which comprises the

plurality of screen captures, one or more inputs and/or programs necessary to reach the application states indicated by each of the screen captures, one or more actions available from each of the states, and the effects of undertaking each of the actions available from each of the states (See page 9, lines 12 - 17; page 11, lines 9 - 14; page 20, lines 1 - 11); and a navigation planner (See page 10, lines 8 - 14; page 11, lines 1 - 3) that receives a problem statement (See page 13, line 15), creates a plan of solving the problem statement by using the knowledge base, and executes the plan, wherein the creating of the plan by the navigation planner comprises the navigation planner dynamically analyzing a current screen to determine a current state, determining a desired state associated with the problem statement, and dynamically identifying a sequence of the actions from the current state needed to achieve the desired state (See page 9, lines 12 - 17; page 16, line 14 - page 17, line 4).

VI. Grounds of Rejection to be Reviewed on Appeal

A. Claims 1 - 24 stand rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,690,371 to Okerlund *et al.* (hereinafter "the Okerlund patent").

B. Claims 5, 8, 9, 12, 18 and 22 - 24 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

VII. Argument

A. Rejection of Claims 1 - 24 under 35 U.S.C. § 102(e)

Claim 1

Appellants respectfully submit that in rejecting claim 1 the Examiner has adopted an unreasonable claim construction in violation of MPEP § 2111. Only under that unreasonable claim construction could the Examiner support the anticipation rejection.

Claim 1 recites a "screen fingerprinter"; a "decision tree"; and "screens of a presentation space of a computer application". In combination, the "fingerprinter comprises a decision tree that selects at least one region and/or pattern of screens of a presentation space of a computer application to be captured such that an occurrence of the at least one region and/or patterns enables the decision tree to uniquely identify each of the screens" (emphasis added).

The Examiner advanced a construction for "screen fingerprinter" by stating that "a fingerprinter is simply software that acquires specific screen presentation data related to at least one computer." *See* January 20, 2006 Office Action, page 4, lines 1 - 3. The Examiner proffered no precise construction for "screens of a presentation space of a computer application." Instead, relying on his paraphrase of these claim elements as "screen presentation data", the Examiner merely assumed that medical imaging

data operated on and displayed by the methods of Okerlund satisfied these claim elements.

Appellant submits that, even assuming the broadest reasonable construction of these claim elements as required by MPEP § 2111, one of ordinary skill in the art still would not adopt the Examiner's construction, thus rendering the Examiner's construction, and resulting rejection, faulty. *See* MPEP § 2111, *In re Cortright*, 165 F. 3d 1353, 1359, 49 USPQ2d 1464, 1468 (Fed. Cir. 1999)

First, applying the plain meaning of the claim elements at issue without reference to the specification, one of ordinary skill in the art would understand that the claim elements are directed to graphical components generated by an application program and apparatus that operate on them; not to external data (such as medical imaging data) that an application program may be used to display. The reasonableness of this construction becomes even more evident when the recited object of the "decision tree" is taken into consideration - "to uniquely identify each of the screens." One of ordinary skill in the art would understand that if the "screens of a presentation layer of a computer application" encompassed not only the graphical components generated by an application program but also data that the application program may be used to display, the "decision tree" would not be able to uniquely identify each of the screens. If data was taken into consideration, each time a particular screen displayed new data, another "unique" screen would be identified, even

though the screen itself did not change (only the data being displayed changed).

The unreasonableness of Examiner's construction is particularly illustrated in situations when data being displayed changes frequently. This is because the number of screens to uniquely identify would be potentially infinite since each display of new data would comprise another unique screen. One of ordinary skill in the art would reject such a strained construction and conclude that the "decision tree" is uniquely identifying the screens themselves, and not the screens when displaying data.

Second, when construed with reference to the specification, the Examiner's construction becomes even more problematic. Appellant's invention is directed to methods and apparatus that allow a collection of diverse application programs or computers to be controlled remotely, possibly through a single interface. In order to accomplish this end, it is learned how each of the application programs or computers operates and is controlled. In order to learn how each of the application programs or computers is controlled, each unique screen that an application program or computer may display is identified, since proper control of the application or computer cannot be achieved if each screen used to control the application is not taken into consideration. The "screen fingerprinter" performs these operations. In addition, one of ordinary skill in the art after reading the specification would understand that "screens of a presentation layer of an application program" are directed

to screens generated by the application program without reference to the data the screens may be used to display. Externally generated data that a screen of an application program may display is of no interest, since it is not a control element of the application program.

This is confirmed at page 19, lines 13 - 17 of the Application when creation of a "decision tree" is described (emphasis added):

> "To create a decision tree, unique features of each screen within the terminal application need to be identified. Screens can often be identified based on features they share, such as the titles on menu screens, screen ID numbers, or the system date or time displayed on the top or bottom line. The fingerprinting schema, however should not identify regions of a screen containing data that dynamically changes".

As stated previously, if the fingerprinter did identify regions of a screen containing data that dynamically changes, it would not be possible to uniquely identify screens to be used for control purposes.

No credence should be given to the Examiner's repeated incantation that Appellant is seeking to read limitations into the claims from the specification. Appellant instead is relying on a proper construction of terminology that already appears in the claims - "a screen fingerprinter"; "decision tree"; and "screens of a presentation layer of an application program".

With Appellant's construction in mind, it is clear that the portions of the Okerlund patent relied upon by the Examiner simply do not disclose a "screen fingerprinter ...

wherein said fingerprinter comprises a decision tree that selects at least one region and/or pattern of screens of a presentation space of a computer application to be captured such that an occurrence of the at least one region and/or pattern enables the decision tree to uniquely identify each of the screens."

If there is any doubt, Appellant reproduces the portion of the Okerlund patent relied upon by the Examiner appearing at Column 8, lines 28 - 42 here:

> "To efficiently render a volume model after a change has been made to a slice, a hierarchical data structure may be utilized. The hierarchical data structure is in the form of a binary tree, where the leaf nodes are the original slices and the internal nodes are the images produced when rendering pairs of slices. FIG. 11 illustrates a tree produced from the 8 original slices. Node F contains the image produced (typically the color (R,G,B) and opacity (A) for each pixel) when just slices 5 and 6 are projected onto the camera view plane. Node C contains the image produced when nodes F and G are projected and therefore also represent the projection of slices 5 to 8. Nodes A-G store an image of the partial results of rendering the entire volume model. These projected images are the same size as the camera view plane size, which is Px, by Py pixels."

Nowhere in this portion, or any other portion, does the Okerlund patent either describe or suggest the claim elements at issue - "screen fingerprinter"; "decision tree"; or "screens of a presentation layer of an application program." In addition, nowhere does the Okerlund patent either describe or suggest the subject matter represented by the combination of these elements as recited in claim 1. Instead, the Okerlund patent is concerned with manipulating data collected

by medical imaging apparatus, and not with uniquely identifying screens of a presentation space of a computer application as recited in claim 1.

Appellant therefore respectfully submits that claim 1 is patentable and should be allowed.

Claim 2

Appellant respectfully submits that the foregoing arguments presented with respect to claim 1 are equally applicable to claim 2, which depends from claim 1. Those foregoing arguments also demonstrate the patentability of claim 2.

Additionally, claim 2 further recites "wherein said fingerprinter allows a user to modify which portion of a screen comprises said region and/or pattern and which attributes of said region and/or pattern to examine." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 2.

Appellant therefore respectfully submits that claim 2 is patentable and should be allowed.

Claim 3

Appellant respectfully submits that the foregoing arguments presented with respect to claim 1 are equally applicable to claim 3, which depends from claim 1. Those

foregoing arguments also demonstrate the patentability of claim 3.

Additionally, claim 3 further recites "wherein said fingerprinter creates the decision tree based on said at least one region and/or pattern such that after each screen is compared to the region or pattern at each decision node, a screen identifier will come to a different end node of said decision tree for each screen." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 3.

Appellant therefore respectfully submits that claim 3 is patentable and should be allowed.

Claim 4

Appellant respectfully submits that the foregoing arguments presented with respect to claims 1 and 3 are equally applicable to claim 4, which depends directly from claim 3, and indirectly from claim 1. Those foregoing arguments also demonstrate the patentability of claim 4.

Additionally, claim 4 further recites "wherein said fingerprinter allows a user to modify said decision tree by modifying the comparisons at the decision nodes." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 4.

Appellant therefore respectfully submits that claim 4 is patentable and should be allowed.

Claim 5

Claim 5 recites a "computer system computer application recorder … wherein said recorder records in said computer memory a knowledge base which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to reach each state, the available actions from each state of each screen and the effect of any actions available in each state through navigating said computer application in said user interface."

Appellant notes that in a first aspect, claim 5 recites a recorder that "records … each screen of the presentation layer of a computer application … through navigating said computer application in said user interface." The foregoing argument presented with respect to claim 1 regarding the proper construction of "screens of the presentation layer of a computer application", and the fact that Okerlund is concerned with manipulating medical imaging information and not with screens of an application program, is similarly applicable here. Since Okerlund is not concerned with "screens of the presentation layer of a computer application", it is additionally not seen to disclose a "recorder" that "records … each screen of the presentation layer of a computer application."

Also, Appellant notes that the screen recording operations are performed when an entity is "navigating said computer application in said user interface." There is simply no similar operation either described or suggested by Okerlund, i.e., performing recording operations while

navigating an application program so that a knowledge base may be developed describing how the application program operates.

Continuing, in a second aspect claim 5 recites that the "recorder" also "records ... the keystrokes and/or programs necessary to reach each state". The Examiner relies on portions of Okerlund that have to do with apparatus used to control a medical imaging device as seen, for example, by the portion appearing at Column 3, lines 10 - 21 reproduced here:

> "Computer 36 also receives commands and scanning parameters from an operator via console 40 that has a keyboard. An associated cathode ray tube display 42 allows the operator to observe the reconstructed image and other data from computer 36. The operator supplied commands and parameters are used by computer 36 to provide control signals and information to DAS 32, x-ray controller 28 and gantry motor controller 30. In addition, computer 36 operates a table motor controller 44 which controls a motorized table 46 to position patient 22 in gantry 12. Particularly, table 46 moves portions of patient 22 through gantry opening 48."

This and other portions relied upon by the Examiner simply have to do with controlling a medical imaging apparatus so that desired scan data is collected during patient scanning operations, and thus are not concerned with a "recorder" that "records keystrokes and/or programs necessary to reach each state" of an "application program" as required by claim 5.

In review, as explained in Appellant's specification, it is necessary to develop a model identifying how an application program is controlled so that it performs certain actions, in order that when these actions are required to be performed later a plan can be developed to accomplish the actions.

Without understanding how keystrokes and/or programs can be used to bring about certain screen states of an application program, it would not be possible to develop the plan. **The relied-upon portions of Okerlund are simply concerned with controlling scanning operations, and not with developing a knowledge base identifying how keystrokes and/or programs can be used to cause an application program to assume various states.** The comments above concerning the fact that the recording operations occur as the application program is navigated are similarly applicable here.

Additionally, claim 5 in a further aspect recites that the "recorder" "records . . . the available actions from each state of each screen and the effect of any actions available in each state." As with the other aspects of claim 5, the recording operations occur when "navigating said computer application in said user interface." It is not understood how Okerlund could possibly disclose this element of claim 5. The methods and apparatus of Okerlund complete their tasks when scanning operations have been performed, and image data has been collected and displayed. Since the collected image data in Okerlund is not an application program, it does not have "available actions." Lacking "available actions", Okerlund also lacks a recorder that "records … the effect of any action."

Appellant therefore respectfully submits that claim 5 is patentable and should be allowed.

Claim 6

Appellant respectfully submits that the foregoing arguments presented with respect to claim 5 are equally applicable to claim 6, which depends from claim 5. Those foregoing arguments also demonstrate the patentability of claim 6.

Additionally, claim 6 further recites "wherein said processor generates said file while a user navigates said another computer system in said user interface." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 6.

Appellant therefore respectfully submits that claim 6 is patentable and should be allowed.

Claim 7

Appellant respectfully submits that the foregoing arguments presented with respect to claim 5 are equally applicable to claim 7, which depends from claim 5. Those foregoing arguments also demonstrate the patentability of claim 7.

Additionally, claim 7 further recites "wherein said processor generates said file while automatically navigating said another computer system." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 7.

Appellant therefore respectfully submits that claim 7 is patentable and should be allowed.

Claim 8

Appellant respectfully submits that the foregoing arguments presented with respect to claim 5 are equally applicable to claim 8, which depends from claim 5. Those foregoing arguments also demonstrate the patentability of claim 8.

Additionally, claim 8 further recites "wherein a fingerprint of each screen is included in said knowledge base." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 8.

Appellant therefore respectfully submits that claim 8 is patentable and should be allowed.

Claim 9

Appellant respectfully submits that the foregoing arguments presented with respect to claim 5 are equally applicable to claim 9, which depends from claim 5. Those foregoing arguments also demonstrate the patentability of claim 9.

Additionally claim 9 further recites "wherein pre-conditions and post-conditions for each state are included in

said knowledge base." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 9.

Appellant therefore respectfully submits that claim 9 is patentable and should be allowed.

Claim 10

Claim 10 recites a "computer system navigation planner ... wherein when said navigation planner receives a problem statement, said navigation planner accesses said at least one computer application model to create a plan of solving said problem statement and executes said plan."

The Examiner relies on a portion of the Okerlund patent appearing at Column 3, lines 10 - 21 (reproduced above) as reciting a "computer application model" required by claim 10. Close examination of this portion of the Okerlund patent indicates that no such "computer application model" is either described or suggested. Instead, this portion of Okerlund refers to operations performed by a computer presumably under program control, and to a reconstructed image. The program managing interaction with technicians and the operation of the medical imaging apparatus is not a "computer application model", but instead is an application program!

The model is not the application itself; it is a tool that can be used to understand how to control the application. This is explained in the application at page 13, lines 12 - 17 (emphasis added):

> "In a preferred embodiment of the present invention, models that encapsulate information on how remote applications are controlled and data is accessed are created to be used by a runtime agent that intelligently reasons out goal-oriented plans and execute tasks to solve problem statements generated by a user interface. The models and runtime agent are stored in computer memory 600, as shown in FIG. 6. Processor 610 accesses computer memory 600 to retrieve the models and runtime agent as necessary."

Accordingly, neither the portion relied on by the Examiner, nor any portion of the Okerlund patent, either describes or suggests a "computer application model" as recited in claim 10.

Claim 10 also recites a "navigation planner ... wherein when said navigation planner receives a problem statement, said navigation planner accesses said at least one computer application model to create a plan of solving said problem statement and executes said plan." First, since the Okerlund patent neither describes nor suggests a "computer application model" as recited in claim 10, it is not seen how the Okerlund patent can describe something that depends on the existence of the "computer application model" i.e., the "navigation planner", to operate.

Second, the portion of Okerlund appearing at Column 8, lines 28 - 42, refers to rendering operations performed on a volume model, and not to a "navigation planner that receives a problem statement [and] ... accesses said at least one computer application model to create a plan of solving said problem statement and executes said plan". The problem statement concerns control of an application program, and the computer

application model is accessed to determine how to use the computer application to solve the problem. Nowhere in this portion of Okerlund is there described a "navigation planner"; a "problem statement"; or a "computer application model".

Appellant therefore respectfully submits that claim 10 is patentable and should be allowed.

Claim 11

Appellant respectfully submits that the foregoing arguments presented with respect to claim 10 are equally applicable to claim 11, which depends from claim 10. Those foregoing arguments also demonstrate the patentability of claim 11.

Additionally, claim 11 further recites "wherein when said plan fails, said navigation planner creates a new and different plan to solve said problem statement." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 11.

Appellant therefore respectfully submits that claim 11 is patentable and should be allowed.

Claim 12

Appellant respectfully submits that arguments presented above with respect to both claims 1 and 5 are equally

applicable to claim 12 and demonstrate the patentability of claim 12.

As further support for the patentability of claim 12 Appellant supplies the following additional arguments. Claim 12 also recites "wherein additional relationships between said screen and said knowledge base can be input through said user interface such that said computer application model generator can model said computer application." As set forth above with respect to claim 1, the methods and apparatus of Okerlund are not concerned with "screens", where "screens" correspond to "screens of a presentation space of a computer application". Accordingly, Okerlund cannot be seen to disclose the input of "additional relationships between said screen and said knowledge base". Further, Okerlund is concerned with manipulating medical imaging data and not with generating computer application models, so it does not disclose a "computer model application generator [that] can model said computer application".

Any lingering doubt about whether Okerlund either describes or suggests this aspect of claim 12 is dispelled by a review of the portion of Okerlund appearing at column 3, lines 36 - 47 relied upon by the Examiner:

> "Exam prescription subsystem 50 is responsible for determining how the patient exam data is acquired. Numerous parameters are required to specify an acquisition including a sequence of slice locations, slice thickness, field-of-view, scanning technique, and reconstruction algorithm. Volume imaging and filming presentation parameters may also be included in the exam scan prescription. These parameters can be entered explicitly by the

> technologist or, more commonly, the parameters are defined by selecting a particular scan protocol as is well known in the art. Subsystem 50 generates a scan prescription and the prescription is transmitted to DAS 32 (FIG. 2)."

As is apparent, this portion merely concerns controlling medical scanning apparatus so that desired medical imaging data is collected. It neither describes nor suggests an apparatus "wherein additional relationships between said screen and said knowledge base can be input through said user interface such that said computer application model generator can model said computer application".

Appellant therefore respectfully submits that claim 12 is patentable and should be allowed.

Claim 13

Appellant respectfully submits that the foregoing arguments presented with respect to claim 10 are equally applicable to independent claim 13, demonstrating the patentability of claim 13.

Additionally, claim 13 further recites a "computer system computer application integrator, said computer system comprising: a processor; a computer memory; a runtime agent stored in said computer memory; and at least one computer application model stored in said computer memory, said model modeling at least one computer application; wherein when said processor receives a problem statement, said runtime agent accesses said at least one computer application model to intelligently reason out a goal-oriented plan and accesses the

modeled computer applications to execute the tasks necessary to solve said problem statement." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 13.

Appellant therefore respectfully submits that claim 13 is patentable and should be allowed.

Claim 14

Appellant respectfully submits that the foregoing arguments presented with respect to claim 1 are equally applicable to independent claim 14, demonstrating the patentability of claim 14.

Additionally, claim 14 further recites a "method of uniquely identifying the screens of the presentation layer of a computer application comprising the steps of: taking a screen capture of each screen of the presentation layer of a computer application; selecting areas of said screen captures to be examined for the presence of an attribute in said area; and creating a decision tree such that each of said screen captures has a unique end node of said decision tree." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 14.

Appellant therefore respectfully submits that claim 14 is patentable and should be allowed.

Claim 15

Appellant respectfully submits that the foregoing arguments presented with respect to claims 1 and 14 are equally applicable to claim 15, which depends from claim 14. Those forgoing arguments also demonstrate the patentability of claim 15.

Additionally, claim 15 further recites "wherein said areas are selected automatically." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 15.

Appellant therefore respectfully submits that claim 15 is patentable and should be allowed.

Claim 16

Appellant respectfully submits that the foregoing arguments presented with respect to claims 1 and 14 are equally applicable to claim 16, which depends from claim 14. Those foregoing arguments also demonstrate the patentability of claim 16.

Additionally, claim 16 further recites "wherein said areas are selected manually." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 16.

Appellant therefore respectfully submits that claim 16 is patentable and should be allowed.

Claim 17

Appellant respectfully submits that the foregoing arguments presented with respect to claims 1 and 14 are equally applicable to claim 17, which depends from claim 14. Those foregoing arguments also demonstrate the patentability of claim 17.

Additionally, claim 17 further recites "wherein said decision tree is created manually." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 17.

Appellant therefore respectfully submits that claim 17 is patentable and should be allowed.

Claim 18

Appellant respectfully submits that the foregoing arguments presented with respect to claim 5 are equally applicable to independent claim 18, demonstrating the patentability of claim 18.

Additionally, claim 18 further recites a "method of recording the states of a computer application comprising the steps of: accessing said computer application; navigating said computer application; and recording in a knowledge base each screen of the presentation layer of said computer application, keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen."

Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 18.

Appellant therefore respectfully submits that claim 18 is patentable and should be allowed.

Claim 19

Appellant respectfully submits that the foregoing arguments presented with respect to claims 5 and 18 are equally applicable to claim 19, which depends from claim 18. Those arguments also demonstrate the patentability of claim 19.

Additionally, claim 19 further recites "wherein said computer application is navigated automatically." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 19.

Appellant therefore respectfully submits that claim 19 is patentable and should be allowed.

Claim 20

Appellant respectfully submits that the foregoing arguments presented with respect to claims 5 and 18 are equally applicable to claim 20, which depends from claim 18. Those foregoing arguments also demonstrate the patentability of claim 20.

Additionally, claim 20 further recites "wherein said computer application is navigated manually." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 20.

Appellant therefore respectfully submits that claim 20 is patentable and should be allowed.

Claim 21

Appellant respectfully submits that the foregoing arguments presented with respect to claim 10 are equally applicable to independent claim 21, demonstrating the patentability of claim 21.

Additionally, claim 21 further recites a "method of planning a solution to a problem statement comprising the steps of: receiving a problem statement at a computer system; accessing at least one computer application model that encapsulates information on how at least one computer application is controlled and/or data is accessed; planning at least one path through said at least one computer application that will achieve the goal of said problem statement; and executing said at least one path." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 18.

Appellant therefore respectfully submits that claim 21 is patentable and should be allowed.

Claim 22

Appellant respectfully submits that the foregoing arguments presented with respect to claim 12 are equally applicable to independent claim 22, demonstrating the patentability of claim 22.

Additionally, claim 22 further recites "taking a screen capture of each screen of the presentation layer of a computer application; selecting areas of said screen captures to be examined for the presence of an attribute in said area; creating a decision tree such that each of said screen captures has a unique end node of said decision tree; accessing said computer application; navigating said computer application; and recording in a knowledge base each screen of the presentation layer of said computer application, keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 22.

Appellant therefore respectfully submits that claim 22 is patentable and should be allowed.

Claim 23

Appellant respectfully submits that the foregoing arguments presented with respect to claims 12 and 22 are equally applicable to claim 23, which depends from claim 22.

Those arguments also demonstrate the patentability of claim 23.

Additionally, claim 23 further recites "allowing a user to insert additional relationships and commands into said knowledge base." Nowhere does the Okerlund patent either describe or suggest this subject matter of claim 23.

Appellant therefore respectfully submits that claim 23 is patentable and should be allowed.

Claim 24

Appellant respectfully submits that arguments presented above with respect to all of claims 1, 5 and 10 are equally applicable to claim 24 and demonstrate the patentability of claim 24.

As further support for the patentability of claim 24 Appellant supplies the following additional arguments. Claim 24 also recites a system "wherein the creating of the plan by the navigation planner comprises the navigation planner dynamically analyzing a current screen to determine a current state, determining a desired state associated with the problem statement, and dynamically identifying a sequence of the actions from the current state needed to achieve the desired state." Nowhere in Okerlund is this claim element either described or suggested.

Appellant therefore respectfully submits that claim 24 is patentable and should be allowed.

B. Rejection of Claims 5, 8, 9, 12, 18, 22, 23 and 24 under 35 U.S.C. § 112, first paragraph

Claim 5

The Examiner rejected claim 5 on the basis that the claim element "knowledge base" purportedly does not find support in the application as filed. When testing for compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, the Examiner is apparently applying a standard that requires new claim elements added during prosecution to appear exactly as set forth in the application as filed. The standard is not whether the exact words used to claim subject matter appeared in the application as filed, but whether the subject matter sought to be claimed is supported "expressly, implicitly, or inherently … in the originally filed disclosure." *See* MPEP § 2163(II)(A)(3)(b); *In re Wright*, 866 F.2d 422, 425, 9 USPQ2d 1649, 1651 (Fed. Cir. 1989). In other words, in testing for compliance with the written description requirement, there is "no *in haec verba* requirement." *See* MPEP § 2163(I)(B).

Appellant notes that the specification is replete with descriptions of various kinds of information and models as being saved to computer memory. One example appearing at page 13, lines 12 - 17) is reproduced here (emphasis added):

> "In a preferred embodiment of the present invention, models that encapsulate information on how remote applications are controlled and data is accessed are created to be used by a runtime agent that intelligently reasons out goal-oriented plans and execute tasks to solve problem statements generated by a user interface. The models and runtime agents are stored in computer memory 600, as shown in FIG. 6. Processor 610

> accesses computer memory 600 to retrieve the models and runtime agents as necessary."

Other models, data and information are described at page 16, lines 9 - 13; lines 14 - 18; page 17, lines 5 - 14 as being stored to memory without reference to particular manner of storage. Appellant respectfully submits that the combination of these models, data and information synonymously comprises a "knowledge base" demonstrating that the application as filed does support this claim element.

Appellant therefore respectfully submits that claim 5 is patentable and should be allowed.

Claims 8, 9, 12, 18, 22, 23 and 24 stand or fall with claim 5.

Claim 24

The Examiner rejected claim 24 on the purported basis that the following limitation did not find support in the application as filed:

> "wherein the creating of the plan by the navigation planner comprises the navigation planner dynamically analyzing a current screen to determine a current state, determining a desired state associated with the problem, and dynamically identifying a sequence of the actions from the current state needed to achieve the desired state."

Appellant notes that the Examiner provided no specific reason why this limitation is not supported by the application as filed. Nonetheless, the Appellant observes that the application program models are described in the application as

filed as recording information describing how to navigate from one screen state to another screen state. The following portion appearing at page 9, lines 12 - 17 of the Application is reproduced here (emphasis added):

> It is a further object of this invention to provide a computer system state recorder comprising a processor, a computer memory and a user interface stored in the computer memory including a state recorder. The state recorder records in the computer memory a planned domain file which comprises each state of the presentation layer of another computer system, the available actions from each state, and the effect of any actions available in each state through navigating the other computer system in the user interface.

In addition, Appellant observes that the navigation planner and runtime agents are described at page 16, line 14 - page 17, line 4 of the Application as creating methods that allow navigation from one state to another state (emphasis added):

> Next, navigation information must be added 212. Navigation information allows the runtime agent to plan navigation paths that achieve goals. To add navigation information, state members 215 and methods must be created 220. State members represent a condition or position of the system. A method groups instructions, which are definitions of operations that are performed - instructions to go from one state to another.
>
> Once, at a minimum, start and finish states are created 215, methods need to be created 320. The method contains the instructions that the runtime agent will execute in the navigation. Once the new method is added 220, the user must enter a precondition 225 and a post-condition 230 for the new method. The precondition specifies that for the selected method, the selected state

is the … initial point for navigation. The post-condition specifies that for the selected method, the selected state is the end point for the navigation.

Accordingly, in view of the above, Appellant respectfully submits that there is clear support for the claim element at issue in the application as filed.

Appellant therefore respectfully submits that claim 24 is patentable and should be allowed.

VIII. Claims Appendix

Attached.

IX. Evidence Appendix

None.

X. Related Proceedings Appendix

None.

Conclusion

In view of the arguments presented above, it is respectfully requested that the Examiner's rejections of Claims 1 - 24 be reversed.

Respectfully submitted,

Mark F. Harrington (Reg. No. 31,686) Date 11/16/06

Customer No.: 29683
Harrington & Smith, LLP
4 Research Drive
Shelton, CT 06484-6212
203-925-9400

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail on the date shown below in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

November 17, 2006
Date

Name of Person Making Deposit

VIII. CLAIMS APPENDIX

The following is a list of the claims on appeal and, in accordance with USPTO procedures, does not include any objected to claims, cancelled claims, or allowed claims.

1. A computer system computer application screen fingerprinter, said computer system comprising:

a processor;

a computer memory coupled to said processor; and

a screen fingerprinter stored in said computer memory, wherein said fingerprinter comprises a decision tree that selects at least one region and/or pattern of screens of a presentation space of a computer application to be captured such that an occurrence of the at least one region and/or pattern enables the decision tree to uniquely identify each of the screens.

2. A computer system as in claim 1, wherein said fingerprinter allows a user to modify which portion of a screen comprises said region and/or pattern and which attributes of said region and/or pattern to examine.

3. A computer system as in claim 1, wherein said fingerprinter creates the decision tree based on said at least one region and/or pattern such that after each screen is compared to the region or pattern at each decision node, a screen identifier will come to a different end node of said decision tree for each screen.

4. A computer system as in claim 3, wherein said fingerprinter allows a user to modify said decision tree by modifying the comparisons at the decision nodes.

5. A computer system computer application recorder, said computer system comprising: a processor; a computer memory coupled to said processor; a user interface and a recorder stored in said computer memory, wherein said recorder records in said computer memory a knowledge base which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to reach each state, the available actions from each state of each screen and the effect of any actions available in each state through navigating said computer application in said user interface.

6. A computer system as in claim 5, wherein said processor generates said file while a user navigates said another computer system in said user interface.

7. A computer system as in claim 5, wherein said processor generates said file while automatically navigating said another computer system.

8. A computer system as in claim 5, wherein a fingerprint of each screen is included in said knowledge base.

9. A computer system as in claim 5, wherein pre-conditions and post-conditions for each state are included in said knowledge base.

10. A computer system navigation planner, said computer system comprising; a processor; a computer memory coupled to said processor; at least one computer application model stored in said computer memory; and a navigation planner stored in said computer memory; wherein when said navigation planner receives a problem statement, said navigation planner accesses said at least one computer application model to create a plan of solving said problem statement and executes said plan.

11. A computer system as in claim 10, wherein when said plan fails, said navigation planner creates a new and different plan to solve said problem statement.

12. A computer system computer application model generator, said computer system comprising:

a processor;

a fingerprinter;

a recorder; and

a user interface;

wherein said fingerprinter selects at least one region and/or pattern of the screens of the presentation space of a computer application to be captured such that said at least one region and/or pattern of each screen is unique;

wherein said recorder records in said computer memory a knowledge base which comprises each screen of the presentation layer of a computer application, the keystrokes and/or programs necessary to each screen, a fingerprint of each screen, the available actions from each screen and the effect of any actions available in each screen through navigating said computer application in said user interface;

wherein additional relationships between said screen and said knowledge base can be input through said user interface such that said computer application model generator can model said computer application.

13. A computer system computer application integrator, said computer system comprising: a processor; a computer memory; a runtime agent stored in said computer memory; and at least one computer application model stored in said computer memory, said model modeling at least one computer application; wherein when said processor receives a problem statement, said runtime agent accesses said at least one computer application model to intelligently reason out a goal-oriented plan and accesses the modeled computer applications to execute the tasks necessary to solve said problem statement.

14. A method of uniquely identifying the screens of the presentation layer of a computer application comprising the steps of: taking a screen capture of each screen of the presentation layer of a computer application; selecting areas of said screen captures to be examined for the presence of an attribute in said area; and creating a decision tree such that each of said screen captures has a unique end node of said decision tree.

15. A method as in claim 14, wherein said areas are selected automatically.

16. A method as in claim 14, wherein said areas are selected manually.

17. A method as in claim 14, wherein said decision tree is created manually.

18. A method of recording the states of a computer application comprising the steps of: accessing said computer application; navigating said computer application; and recording in a knowledge base each screen of the presentation layer of said computer application, keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen.

19. A method as in claim 18, wherein said computer application is navigated automatically.

20. A method as in claim 18, wherein said computer application is navigated manually.

21. A method of planning a solution to a problem statement comprising the steps of: receiving a problem statement at a computer system; accessing at least one computer application model that encapsulates information on how at least one computer application is controlled and/or data is accessed; planning at least one path through said at least one computer application that will achieve the goal of said problem statement; and executing said at least one path.

22. A method of modeling computer applications comprising the steps of: taking a screen capture of each screen of the presentation layer of a computer application; selecting areas of said screen captures to be examined for the

presence of an attribute in said area; creating a decision tree such that each of said screen captures has a unique end node of said decision tree; accessing said computer application; navigating said computer application; and recording in a knowledge base each screen of the presentation layer of said computer application, keystrokes and/or programs necessary to reach each state of each screen of said computer application, the states of each screen, and the effect of any actions taken on each screen.

23. A method as in claim 22, further comprising the steps of: allowing a user to insert additional relationships and commands into said knowledge base.

24. A system for navigating an application comprising:

a processor;

a computer memory coupled to the processor;

a screen fingerprinter stored in said computer memory, wherein said fingerprinter comprises a decision tree that selects at least one region and/or pattern of screens of the presentation space of a computer application to be captured such that an occurrence of the at least one region and/or pattern enables the decision tree to uniquely identify each of the screens;

a recorder stored in the computer memory, the recorder recording a knowledge base which comprises the plurality of screen captures, one or more inputs and/or programs necessary to reach the application states indicated by each of the screen captures, one or more actions available from each of the states, and the effects of undertaking each of the actions available from each of the states; and

a navigation planner that receives a problem statement, creates a plan of solving the problem statement by using the knowledge base, and executes the plan,

wherein the creating of the plan by the navigation planner comprises the navigation planner dynamically analyzing a current screen to determine a current state, determining a desired state associated with the problem statement, and dynamically identifying a sequence of the actions from the current state need to achieve the desired state.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None